

CLAIMS

1. A method of managing events in a standard computer system comprising a central unit (10) connected to memory units (20) and peripheral devices (30, 40) by a data bus (50) allowing a multimaster configuration, the method comprising the following steps:
 - receiving events,
 - time-stamping and storing the events,
 - assigning at least one appropriate action to each received event, and
 - executing that action in response to the received event,which method is characterized in that the above-mentioned management steps are carried out in real time without access to the central unit (10) by a management unit (70) included in an independent management module (60) connected to the data bus (50) and incorporated into the standard computer system.
- 20 2. A management method according to claim 1, characterized in that each event received is stored in a first memory (73) associated with the management unit (70).
- 25 3. A management method according to either claim 1 or claim 2, characterized in that the timescale of real-time management is of the order of one microsecond.
- 30 4. A management method according to any one of claims 1 to 3, characterized in that the independent management module (60) is isolated from the central unit (10) by a bridge (57).
- 35 5. A management method according to any one of claims 1 to 4, characterized in that said action is read in a table of actions associated with the management unit (70) and is preprogrammed via the data bus (50).

6. A management method according to any one of claims 1 to 5, characterized in that events received by the management unit (70) are time-stamped to an accuracy of the order of 100 nanoseconds and stored in a second memory (74) associated with 5 the management unit (70) so that these events may be read via the data bus (50) in order to store and monitor these events.

7. A management method according to any one of claims 1 to 6, characterized in that events received by the management 10 unit (70) are generated by a clock register (64, 65) internal to the management module (60).

8. A management method according to any one of claims 1 to 6, characterized in that events received by the management 15 unit (70) come from a unit (89) adjacent the management module (60).

9. A management method according to any one of claims 1 to 6, characterized in that events received by the management 20 unit (70) come from an equipment (87) external to the computer system.

10. A management method according to either claim 8 or claim 9, characterized in that events received by the management 25 unit (70) are synchronized to a frequency corresponding to that of a clock internal to the computer system.

11. A management method according to any one of claims 1 to 9, characterized in that events received from the external 30 equipment (87) are filtered to eliminate interference.

12. A management method according to any one of claims 1 to 11, characterized in that the management unit (70) generates an interrupt if it is not possible to associate an event with 35 an action.

13. Event management module incorporated into a standard computer system comprising a central unit (10) connected to memory units (20) and peripheral devices (30, 40) by a data bus (50) allowing a multimaster configuration, which module is
5 characterized in that it comprises:

- an independent management unit (70) connected to the central unit (10) via an interface (63) and the data bus (50), said management unit (70) being adapted to receive and process events in real time without intervention by the central unit
10 (10),

- a time-stamping clock (71) adapted to time-stamp these events before storing them in a first memory (73) internal to the management unit (70), and

- a random-access memory (61) containing a preprogrammed
15 table of actions, associated with the management unit (70) and adapted to assign appropriate actions to events received thereby.

14. A management module according to claim 13, characterized
20 in that the data bus (50) is a standard bus selected from the group comprising a PCI bus, a VME bus, a compact PCI bus and a USB bus.

15. A management module according to either claim 13 or claim
25 14, characterized in that it further comprises a second memory (74) internal to the management unit (70) for storing events in order to read them via the data bus (50).

16. A management module according to any one of claims 13 to
30 15, characterized in that the first memory (73) and the second memory (74) are of the FIFO type.

17. A management module according to claim 13, characterized
35 in that the random-access memory (61) containing the table of actions is a double-port RAM.